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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,365	01/04/2000	WAI SUM LAI	1999-0492	9145

26652 7590 05/03/2004

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EXAMINER	
BLOUNT, STEVEN	
ART UNIT	**PAPER NUMBER**
2661	

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/477,365	LAI, WAI SUM	
	Examiner	Art Unit	
	Steven Blount	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 2/25/04.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1, 3 - 13, 18, 20 - 28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1, 3 - 13, 18, 20 - 28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 5, 7, 8, 18, and 25 – 28 are rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (hereinafter AAPA) in view of U.S patent 5,247,516 to Bernstein et al.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA and Bernstein.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (AAPA) in view of U.S. patent 5,247,516 to Bernstein as applied above, and futher in view of U.S. patent 4,914,650 to Sriram.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA, Bernstein, and Sriram.

4. Claims 3 and 20 are rejected under 35 U.S.C. 103(a) as being obvious over applicants admitted prior art (AAPA) in view of U.S. patent 5,247,516 to Bernstein as applied above, and futher in view of U.S. patent 5,400,044 to Thomas.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA, Bernstein, and Thomas.

5. Claims 9 – 11, 13, 21, and 23 – 24 are rejected under 35 U.S.C. 103(a) as being obvious over AAPA in view of U.S. patent 6,510,162 to Fijolek et al and U.S. patent

5,247,516 to Bernstein et al.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA, Fijolek et al, and Bernstein.

6. Claim 12 is rejected under under 35 U.S.C. 103(a) as being obvious over AAPA in view of U.S. patent 6,510,162 to Fijolek et al and U.S. patent 5,247,516 to Bernstein and U.S. patent 5,295,140 to Crisler et al.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA, Fijolek et al, Bernstein, and Crisler et al.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being obvious over AAPA in view of U.S. patent 5,247,516 to Bernstein et al as applied above, and further in view of U.S. patent 5,295,140 to Crisler et al.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to AAPA, Bernstein et al, and Crisler.

8. Claims 1, 18, and 28 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,510,162 to Fijolek et al in view of U.S. patent 5,247,516 to Bernstein et al.

Applicant is requested to refer to the previous Office Action, paper number 6, for a discussion of the rejection as it refers to Fijolek et al and Bernstein et al.

Response to Arguments

9. Applicant's arguments filed 10/29/03 have been fully considered but they are not persuasive.

The examiner initially notes that the rejections made with respect to the Hou et al reference have been withdrawn.

The applicant states, with respect to the Bernstein reference, that "Nothing in the Abstract nor Fig. 7 discloses nor suggests the establishment of jitter windows to maintain packet delay variation within an acceptable tolerance as described above."

In response, the examiner notes that in defining their "jitter window", the applicant states, on page 13 of the specification, that:

"By splitting the voice region into two approximately equal non-overlapping windows, and maintaining calls associated with the same SID within the same jitter window, jitter is limited to the duration of the jitter window".

Applicant defines the term SID on page 6 as follows:

"DOCSIS 1.1 uses service identifiers (SIDs) to identify an upstream flow of packets with a particular quality of service (QOS)."

In the abstract of Bernstein, it is stated that:

"The information traffic consists of a multiplicity of media types according to the different subscribers including voice, video and data traffic component types...The traffic component types within the single composite frame are grouped into separate groups of adjacent channels for each traffic component type, so that each group is

limited to channels containing traffic components of the same type, with each channel assigned in its entirety to a selected subscriber".

In view of the fact that applicants invention consists of preventing jitter by keeping voice regions which require the same QOS together in the frame (the use of the term QOS is not made in the claim, but this is the way that the "jitter windows are established" in accordance with the support provided by the specification), and Bernstein et al teach that they assemble the media types together in accordance with their similar requirements:

"all of the various traffic component types in the data streams from multiple subscribers are assembled in composite frames...in such a way as to provide optimum network utilization with minimum cost, and at the same time to satisfy the individual performance requirements of each of the particular traffic component types. The various subscriber data streams are combined by traffic component type at the entry point to the network...Each traffic component type, whether voice, video, low speed data, high speed data or otherwise, possess different characteristics or attributes, such as length of burst, ability to tolerate delay, and so forth. The network itself also has different characteristics or attributes, such as the inherent tendency to introduce transmission delay, which impacts on the attribute of each of the various traffic components' capacity to tolerate delay" (col 3 lines 59+),

the examiner believes that the reasons for grouping the media types as taught in Bernstein, including voice, would render the claims obvious when combined with the

applicants admitted prior art. The examiner further notes that it is implied, and nearly explicitly stated that one of the reasons for grouping the media types in this manner is to prevent delay, as noted in the passage cited immediately above. The examiner also notes that since the media types are grouped together, the voice regions in Bernstein et al would be contained within the "jitter windows", and that having the various traffic components "assembled into composite frames configured for transmission to other subscribers through the integrated services network in such a way as to provide optimum network utilization with minimum cost, and at the same time to satisfy the individual performance requirements of each of the particular traffic component types" (col 3 lines 45+) implies, in addition to the other teachings, that parameters such as packet delay variation "would be maintained within an acceptable tolerance" (col 1 lines 10+).

With regard to claim 9, the applicant states that Fijolek does not address the jitter problem. However, AAPA discusses the jitter problem on page 6, lines 17+, and the solution is found in Bernstein, as is discussed above.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Examiner Blount may be reached at 703-305-0319 between the hours of 9:00 and 5:30 Monday through Friday

Douglas W. Olms

DOUGLAS OLMS
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4/23/04